

+ 261. COLYMBUS SEPTENTRIONALIS.

Not uncommon during winter.

+ 262. COLYMBUS GLACIALIS.

Very rare. There is a specimen of an immature bird in the museum.

263. PODICEPS CRISTATUS.

Visits the large lagoons in great quantities during winter, where they are hunted and shot down systematically. None are allowed (at any rate near Cagliari) to remain to breed.

264. PODICEPS LONGIROSTRIS.

There is an extraordinary-looking specimen of a Grebe in the museum under this name; but as I was unable to handle it, I could not examine it satisfactorily.

265. PODICEPS NIGRICOLLIS.

Extremely numerous during winter, remaining until the end of March, when they nearly all leave. I am not sure whether any remain to breed.

266. PODICEPS MINOR.

Extremely common, but not so numerous as the preceding species. They are resident in the island.

XL.—On *Rallus modestus* of *New Zealand*.

By Capt. F. W. HUTTON.

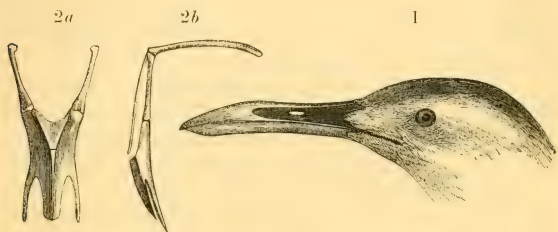
IN his remarks on *Rallus dieffenbachii* ('Birds of New Zealand,' p. 180) Dr. Buller says, "after carefully comparing therewith [*i.e.* with the type of *R. dieffenbachii*] the type specimen of Hutton's *Rallus modestus* (forwarded to me by Dr. Hector), and submitting the matter to the judgment of other competent ornithologists, I have no hesitation in considering it the same species in an immature state of plumage." It is to be regretted that Dr. Buller has not given the names of the "other competent ornithologists;" for naturalists do not generally give anonymous opinions on scientific subjects; but whoever they may be, I venture to think that they have in this case made a very serious error, and I trust that I may be allowed to state my reasons for thinking so.

I labour under the difficulty of never having seen the specimen of *R. dieffenbachii*; but I presume that it is closely allied to *R. philippensis*—in fact, that it represents that bird in the Chatham Islands. I judge so from both species having been put into the same subgenus (*Hypotaenidia*), from both being of about the same size, and from both having the colouring similar in style, and nearly so in tint; in fact so similar are they that it appears to me doubtful whether *R. dieffenbachii* should be retained as a distinct species. Now *Rallus modestus* belongs to a different subgenus (or genus, as I should prefer to call it) from *R. philippensis*, and approaches more nearly to the true type of *Rallus* as exhibited by *R. aquaticus*, although it differs from that bird also sufficiently to form at least another subgenus. The bill is rather stronger than in *R. aquaticus*, and more arched; the nostrils are oval, and placed in the middle of the groove, instead of being linear and subbasal. The wings are very short, with only about fourteen remiges, the inner of which are very small, soft, and downy, while the outer webs of the outer quills are as soft as the inner webs, as in *Ocydromus*; the fourth and fifth quills are the longest, and the first is nearly as long as the second. The thumb is very long and carries a small compressed claw at the end, which is shaped like the claws on the toes. The inner toe is nearly as long as the outer; the hind toe is short, very slender, and placed on the inner side of the tarsus; the claws are short, compressed, and blunt; the tongue is long, narrow, and fringed at the tip.

From *R. philippensis* it differs still more, as the following table of measurements will show:—

	Length.	Expanse.	Tail.	Wing.	Bill from gape.	Culmen.	Tarsus.	Hind toe.	Inner toe.	Middle toe.	Outer toe.
<i>R. dieffenbachii</i> ..	12.25		4.75	3.25	1.5	1.45	1.5	.6		1.75	
<i>R. philippensis</i> ..	12.0	17.5	5.5	2.5	1.75	1.6	1.5	.65	1.58	2.0	1.65
Ditto, young	8.8				1.0	.8	1.5	.48	1.17	1.6	1.2
<i>R. modestus</i>	8.75	8.5	3.15	1.15	1.4	1.35	1.0	.35	1.11	1.4	1.13
Ditto, chick	5.3				1.1	1.0	1.0	.35	.98	1.2	.98

The bill is much more slender (see fig. 1), and longer in proportion to the size of the bird than in *R. philippensis*; the wings are of an entirely different structure; and the tail is very short and soft, and hidden by the coverts; the hind toe also is much more slender; and *R. philippensis* has no claw at the end of the thumb. The sterna also show a great contrast, that of *R. modestus* being very short but comparatively broad (see fig. 2a), with the crest feebly developed, the furcula being almost obsolete, and the scapula making a slightly obtuse angle with the coracoid, as in *Ocydromus** (see fig. 2b); while that of *R. philippensis* resembles in form the sternum of *Crex pratensis*.



Sternum and head of *Rallus modestus*.

Two full-grown specimens and a chick of *R. modestus* have been obtained. The one from which the skeleton in the colonial museum was prepared was caught in March 1871. Dr. F. Knox, who prepared the skeleton, informs me that it was a female, and contained well-developed ova, and that he considered it an adult bird. The other specimen, the skin of which was sent to Dr. Buller, was caught by Mr. H. Travers on the 5th of January, 1872, together with a chick that was running with it. Mr. Travers informs me that both parent birds were with the chick, that no birds of other species were about, and that when he caught the chick it cried out, the mother then ran up, and he caught her also. The peculiar claw at the end of the thumb, as well as the general dimen-

* The sternum, however, is much smaller in proportion to the size of the body in *R. modestus* than it is in *Ocydromus*.

sions of the birds, are also conclusive evidence that the chick is the young of the older bird. The bird caught in March is of the same size as the one caught in January; and the plumage of both is identical. The chick has a greyish patch on each ear, the rest of the body being covered with brownish-black down, under which feathers are beginning to come forth similar in colour to those of the old bird; the quills have not yet begun to shoot.

Now the bird caught in January must have been at least a year, and the one caught in March probably fourteen months old; yet neither of them shows any approach to the plumage of *R. dieffenbachii*, while both have the tarsi and feet much smaller, whereas the bill is nearly as long as in that species. But the dimensions given above show that the legs and feet in young Rails attain the same dimensions as in the adult before the bill does; for the measurements given of the young *R. philippensis* are from a recently fledged specimen in the colonial museum, which, except in the head and neck, shows already a marked approach in colours to the adult, although the quills are not yet developed.

Laying aside therefore all the generic differences between the two birds that I have pointed out, we must assume, if *R. modestus* is the immature *R. dieffenbachii*, that this species differs from its nearest allies, as well as from all other Rails, in the young not assuming any signs of the adult dress until it is more than a year old and has bred, also that the legs of the chick grow to the same size as those of the immature bird in about a month, and that growth then stops for at least a year or until the adult plumage commences to be acquired—any of which suppositions, I venture to think, not many “competent ornithologists” will believe. For my part, I think the bird is quite entitled to form a separate genus.

The weight of the bird is 1·4 ounce; it inhabits rocky places on the island of Mangare, one of the Chatham group. It is worthy of remark that the Morioris call this bird “Matirakahu,” whilst the Maoris call *R. dieffenbachii* “Mohoriki.”

Wellington, N. Z., March 12, 1873.